1: *J Immunol* 1989 Apr 15;142(8):2635-40 Related Articles, Books

Carrier-induced epitopic suppression is initiated through clonal dominance.

Schutze MP, Deriaud E, Przewlocki G, LeClerc C

Laboratoire de Biologie des Regulations Immunitaires, Institut Pasteur, Paris, France.

Injection of mice with an immunogenic dose of carrier followed by immunization with hapten-carrier conjugate selectively suppresses anti-hapten antibody response. Previous studies have proposed that this epitopic suppression is related to the induction of carrier-specific Ts cells which in turn could inhibit selectively anti-hapten response. In the present study, we propose that the epitopic suppression is in fact due to clonal dominance. Immunization with a carrier such as tetanus toxoid induces a clonal expansion of carrier-specific B cells, thus decreasing the probability of hapten-specific B cells to react with the Ag. Increasing the density of the TNP-hapten on the conjugate has totally prevented the induction of the epitopic suppression. Moreover, using low hapten-carrier concentrations to challenge carrier-primed mice has enhanced the induction of the suppression. Finally, priming hapten-specific B cells before carrier/hapten-carrier immunization has also abrogated the suppression. The results of these experiments support the view that epitopic suppression is induced through the expansion of the clones specific for the carrier epitopes and resulted from intra-molecular antigenic competition between hapten and carrier epitopes. Based on these findings a regulatory role is proposed for B cells, where through their capacity to process and present antigen, they would exercise a strong influence on the selection of immune responses.

PMID: 2467933, UI: 89198503

L5 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS

AB The fine specificity of IgE antibody binding to peptide 65-78 of the house dust mite major allergen Der p II was examined by comparison with binding to two peptides in which the cysteines corresponding to cys-73 and cys-78 in Der p II were substituted by serines and methionines. Differences in binding behavior indicated that at least three different subpopulations of IgE antibodies bound to peptide 65-78. Even at the level of such a small fragment the IgE response in individual donors proved to be polyclonal.

AN 1993:473631 BIOSIS
DN PREV199396107231

TI Heterogeneity in the IgE binding to a peptide derived from the house dust mite allergen **Der pII** indicated that the IgE response is highly polyclonal.

AU Van't Hof, Wim; Van Den Berg, Marjan; Driedijk, Peter C.; Aalberse, Rob C.
(1)
CS (1) c/o Publication Secretariate, Central Lab. Neth. Red. Cross Blood Transfusion Serv., P.O. Box 9406, NL-1006 AK Amsterdam Netherlands Antilles

SO International Archives of Allergy and Immunology, (1993) Vol. 101, No. 4, pp. 437-441.
ISSN: 1018-2438.
DT Article
LA English

Q148,152

L11 ANSWER 4 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1993:179536 BIOSIS
DN PREV199344087136
TI Anti-mite IgE, IgG, IgA, IgM antibody and the lymphocyte stimulation tests
by the house dust mite **antigen** in patients with atopic and **non-atopic** asthma.
AU Haida, Michiko; Suko, Matunobu; Okudaira, Hirokazu; Ito, Koji
CS Tokyo Japan
SO Journal of Allergy and Clinical Immunology, (1993) Vol. 91, No. 1 PART 2, pp. 174.
Meeting Info.: Forty-ninth Annual Meeting of the American Academy of Allergy and Immunology Chicago, Illinois, USA March 12-17, 1993
ISSN: 0091-6749.
DT Conference
LA English

L11 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS
AB The allergic responses to mite and Candida **antigen** were analyzed in atopic and **non-atopic** asthmatics to clarify the mechanisms of severe bronchial asthma. Skin responses and serum level of antigen specific IgE to mite antigen were lower in severe atopic asthmatics, especially in intractable atopic asthmatics. The serum level of antigen specific IgG1 and responses of peripheral blood lymphocytes to mite antigen showed no difference with severity in either type of asthma. Atopic severe asthmatics had higher serum levels of antigen specific IgE antibodies to Candida antigen and higher serum levels of antigen specific IgG1 antibodies to Candida antigen than atopic mild and moderate asthmatics. Non-atopic severe asthmatics had higher serum levels of antigen specific IgG1 antibodies to Candida antigen and higher responses of peripheral blood lymphocyte to Candida **antigen** than **non-atopic** mild and moderate asthmatics. In atopic and non-atopic severe asthmatics, bronchial provocation tests by Candida antigen showed higher positive responses than mild and moderate asthmatics. These findings suggest that a common mechanism makes asthma severe in atopic and non-atopic asthma and that Candida antigen plays an important role in both types of asthma,

=> d 6 bib

L11 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1993:47072 BIOSIS
DN PREV199395023374
TI Studies on the allergic features of severe bronchial asthma.
AU Namba, Yasuo
CS Second Dep. Internal Med., Okayama Univ. Med. Sch., Okayama 700 Japan
SO Okayama Igakkai Zasshi, (1992) Vol. 104, No. 7-8, pp. 833-842.
ISSN: 0030-1558.
DT Article
LA Japanese
SL Japanese; English

L11 ANSWER 8 OF 10 MEDLINE DUPLICATE 4

AB This study investigated the cellular response of human lymphocytes to Dermatophagoides pteronyssinus crude antigen and 14 molecular weight (MW) fractions. The cells were derived from atopic patients and healthy individuals who were skin test-positive or skin test-negative to mite antigen. When stimulated with crude antigen, the group of patients showed elevated proliferation and production of lymphokine in comparison with the healthy skin test-negative individuals (P less than 0.01). By stimulation with fractions, there was a remarkable variety in the responding patterns to each fraction. However, when expressed as a mean value, the patient group exhibited a sharp and high peak at 95,000 MW, which is different from IgE responses. In the other two groups, no apparent peak response was observed. Lymphokine production by fraction stimulation was studied in six distinct individuals. The most important fractions for inducing lymphokine production differed in each individual tested. Moreover, fractions which induced active lymphokine production were not necessarily the main targets of proliferative response in atopic patients.

AN 90337555 MEDLINE

DN 90337555

TI Functional characterization of lymphocyte response to fractionated house dust mite **antigens** (Dermatophagoides pteronyssinus) in atopic and **non-atopic** individuals.

AU Kimura J Y; Ohta N; Ishii A; Nagano T; Usui M

CS Department of Parasitology, Okayama University Medical School, Japan..

SO IMMUNOLOGY, (1990 Jul) 70 (3) 385-90.
Journal code: GH7. ISSN: 0019-2805.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199011

L5 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2000 ACS

AB A review and discussion with 10 refs. CD4+ T cells play a crit. role in the initiation and potentiation of the allergic **immune** response. Development of allergen-mediated hyposensitization therapies directed at this cell type requires two key steps: (1) identification of the epitopes that are crucial for activating the T-cell response and (2) definition of the specificity of the HLA-D region mols. that restrict T-cell recognition of these epitopes. The authors have located the major T-cell determinants of the group II allergen of the house dust mite species Dermatophagoides pteronyssinus (Der p II). They have also identified a T-cell clone for which the HLA-DP*0401 allele restricts recognition of the group I allergen residues of house dust mite. This clone overproduces IL-4 and IL-5, cytokines that promote IgE synthesis. When these cells are rendered nonresponsive by incubation with a supraoptimal concn. of their allergen peptide determinant, they lost their ability to secrete IL-4 but maintain interferon gamma prodn. This modified pattern favors a switch away from the pathway of IgE synthesis to that of IgG synthesis. These findings suggest that the use of selected peptides in **vaccines** may allow the redirection of allergic **immune** responses.

AN 1994:628047 CAPLUS

DN 121:228047

TI Human in vitro experimental model for CD4+ T cell targeted **immunotherapy** to house dust mite

AU O'Hehir, Robyn E.; Lamb, Jonathan R.

CS Med. Sch., St. Mary's Hosp., London, UK

SO Ann. Allergy (1993), 71(3), 317-21
CODEN: ANAEA3; ISSN: 0003-4738

DT Journal; General Review

LA English

L5 ANSWER 5 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1994:444193 BIOSIS
DN PREV199497457193
TI **Immune** reactivity to Der p I and Der p II in house dust mite sensitive patients attending paediatric and adult allergy clinics.
AU O'Brien, R. M. (1); Thomas, W. R.
CS (1) University Melbourne, Dep. Med., Western Hosp. Footscray, VIC 3011 Australia
SO Clinical and Experimental Allergy, (1994) Vol. 24, No. 8, pp. 737-742. ISSN: 0954-7894.
DT Article
LA English

=> d 5 ab

L5 ANSWER 5 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS
AB A comparison was made of **immune** responses to house dust mite allergens in symptomatic patients from paediatric and adult allergy clinics. IgE-specific **immune** reactivity to Dermatophagoides pteronyssinus was examined by Western blotting and, for Der p I and Der p II, by radioimmune dot-blot using purified allergens. Nineteen mite-sensitive children (mean age 9 years) and 26 adults (mean age 31 years) were compared. Positive IgE responses by dot-blot were found to Der p I and Der p II in 79% of children, whereas reactivity was only present in 23% and 19% respectively of adults, and densitometry indicated a weaker response. In children, Western blotting indicated that the majority of the serologic reactivity was directed to Der p II (17/19, 89%) or a 100 kDa fraction whereas in adults, reactivities were generally directed to other fractions with only 15/26 (58%) recognizing Der p II. Consistent with results of despite positive dot-blots. To determine whether the relative lack of IgE serological **immune** reactivity in adults was associated with a similar lack of cellular recognition, T-cell proliferation studies were performed, also using purified allergens. Interestingly, these revealed that cellular responsiveness, without serological reactivity, was present in 29% of subjects to Der pI and 50% to **Der pII**. Proliferative responses were evident in all individuals with specific IgE.